BRUHAT BENGALURU MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK : IMPROVEMENTS OF ROADS AND DRAINS AT NAGENAHALLI VILLAGE IN WARD NO.02 OF YELAHANKA SUB-DIVISION

Estimate Cost Rs. **30.00** **Lakhs**

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
1	**Removing B.S. slab** of Drain and stacking (P No.25 / I N 5.32)								
	for Drain	Sqm							
	6th Cross Road		2	117.00	0.75		175.50		
	Thammana House Cross Roads		2	40.00	0.60		48.00		
			2	40.00	0.60		48.00		
			2	40.00	0.60		48.00		
							319.50	65.72	**20998.00**
	Basic Rate	62.00							
	Area Weightage @ 6%	3.72							
	Total	**65.72**							
2	KSRRB 300 - Excavation for road, drains and similar works - KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH Chapter 3 (P.142/I.19.1)								
	Desilting for Drain	Cum							
	6th Cross Road		2	117.00	0.60	0.75	105.30		
	Thammana House Cross Roads		2	40.00	0.60	0.60	28.80		
			2	40.00	0.60	0.50	24.00		
			2	40.00	0.60	0.60	28.80		
							186.90	86.92	**16245.00**
	Basic Rate	82.00							
	Area Weightage @ 6%	4.92							
	Total	**86.92**							
3	**Refixing stone slabs** of drains and pointing in C.M.(1:3)(P.No.25/I.No.5.33)								
		Sqm							
				80% of Qty Vide Item No.1			**255.60**	80.56	**20591.00**
	Basic Rate	76.00							
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
4	Providing and fixing **RCC precast Slabs of 0.10 m thick of CC 1:2:4 with 20 mm** and down size graded granite metal , machine mixed , including cost of all material , labour , HOM of Machinery , curing complete								
		Sqm							
				20% of Qty Vide Item No.1			**63.90**	2100.00	**134190.00**
	Data Rate	**2100.00**							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
5	KSRB 2-1.1 : Earthwork in surface excavation in **ordinary soil** for **levelling and lowering** the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications. specification. No. KBS 2.1 (a) / 2.3.1 (P.5/I.2.1)								
		Cum							
	Thammana House Cross Roads		1	40.00	3.80	0.30	45.60		
			1	40.00	4.00	0.30	48.00		
			1	40.00	3.80	0.40	60.80		
	Cross Road		1	155.00	0.90	0.40	139.50		
	6th Cross Road		1	120.00	0.90	0.30	108.00		
	Cross Road		1	47.00	5.00	0.30	235.00		
							636.90	166.42	**105993.00**
	Basic Rate	157.00							
	Area Weightage @ 6%	9.42							
	Total	**166.42**							
6	KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregate /sand/kaner/ Moorum KSRRB M100-1 Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications MORTH -100/ Chapter 1 (Page No.133/ Item No 17.1)								
		Cum							
				Qty Vide Item No.2+5			**823.80**	100.00	**82380.00**
	Average Weight of Earth 1.28 Tonne/Km								
	Basic Rate Lead Charges for 10.00 Kms (2.50X1.28X10.00)	32.00							
	Add loading and unloading Item No 17.1)	68.00							
	Total	**100.00**							
7	KSRB 4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs with 20mm and down size graded granite metal coarse aggregate @ 0.84cum and fine aggregate @ 0.56 cum machine mixed concrete laid in layers not exceeding 15cms, thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications, specification. No. KBS 4.1.4.2.(P No. 13 / Item No.4.7)								
		Cum							
	for Drain, coping		2	60.00	0.15	0.10	1.80		
	packing concrete		2	150.00	0.15	0.10	4.50		
							6.30	5598.92	**35273.00**
	Basic Rate	5282.00							
	Area Weightage @ 6%	316.92							
	Total	**5598.92**							
8	**Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and /or compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries complete as per Specifications. (P.No.157 & I.No.21.2)								
		Sqm							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
	6th Cross Road		1	120.00	5.00		600.00		
	Cross Road		1	47.00	4.50		211.50		
					Deduct Road cut portions		-221.38		
							590.12	3.18	**1877.00**
	Basic Rate	3.00							
	Area Weightage @ 6%	0.18							
	Total	**3.18**							

9 KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material (P.No.155 It.No.20.4.2)

	Cum							
6th Cross Road		1	120.00	0.90	0.15	16.20		
Cross Road		1	47.00	0.90	0.15	6.35		
Potholes		12	1.20	1.20	0.15	2.59		
		16	1.50	1.20	0.15	4.32		
		25	1.00	1.00	0.15	3.75		
						33.21	1665.26	**55298.00**
Basic Rate	1571.00							
Area Weightage @ 6%	94.26							
Total	**1665.26**							

0 KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I.No.20.18)

	Cum							
6th Cross Road		1	120.00	0.90	0.20	21.60		
Cross Road		1	47.00	0.90	0.20	8.46		
Potholes		12	1.20	1.20	0.15	2.59		
		16	1.50	1.20	0.15	4.32		
		25	1.00	1.00	0.15	3.75		
						40.72	1768.08	**72000.00**
Basic Rate	1668.00							
Area Weightage @ 6%	100.08							
Total	**1768.08**							

Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502 (P.No.160/It No.21.6)

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
		Cum							
	6th Cross Road		1	120.00	0.90		108.00		
	Cross Road		1	47.00	0.90		42.30		
			12	1.20	1.20		17.28		
			16	1.50	1.20		28.80		
			25	1.00	1.00		25.00		
							221.38	27.56	**6101.00**
	Basic Rate	26.00							
	Area Weightage @ 6%	1.56							
	Total	**27.56**							
2	KSRRB M500- 15. Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No.507 (P.No.162&163 It.No.21.17.6)								
		Cum							
	6th Cross Road		1	120.00	1.00	0.050	6.00		
	Cross Road		1	47.00	1.00	0.050	2.35		
			12	1.20	1.20	0.050	0.86		
			16	1.50	1.20	0.050	1.44		
			25	1.00	1.00	0.050	1.25		
	profile correction	15% of Qty Vide Item No.8			88.52	0.050	4.43		
							16.33	6435.26	**105087.00**
	Basic Rate	6071.00							
	Area Weightage @ 6%	364.26							
	Total	**6435.26**							
3	KSRRB 500-7:Providing and **applying tack coat with bitumen emulsion** using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications.(P.No.160 & I.No.21.7)								
		Sqm							
	6th Cross Road		1	120.00	5.00		600.00		
	Cross Road		1	47.00	4.50		211.50		
							811.50	14.84	**12043.00**
	Basic Rate	14.00							
	Area Weightage @ 6%	0.84							
	Total	**14.84**							

Sl. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
4	KSRRB M500- 15. Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications MORTH Specification No.509 (P.No.164 Item No.21.22.6)								
		Cum							
	6th Cross Road		1	120.00	5.00	0.040	24.00		
	Cross Road		1	47.00	4.50	0.040	8.46		
							32.46	7270.54	**236002.00**
	Basic Rate	6859.00							
	Area Weightage @ 6%	411.54							
	Total	**7270.54**							
5	KSRRB M800-13: Road marking with hot applied thermoplastic compound with reflect rising glass beads on bituminous surface- providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface to level, uniform and free from streaks and holes complete as per specifications. MORTH specification No. 803, No. 1974 (P.No.181 & I.No.24.15)								
		Sqm							
			2.5	167	0.10		41.75		
							41.75	464.28	**19384.00**
	Basic Rate	438.00							
	Area Weightage @ 6%	26.28							
	Total	**464.28**							
6	KSRB 4-1.3: Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No.KBS 4.1, 4.2 (P.12/I.4.3)								
	for road	Cum							
	Thammana House Cross Roads		1	40.00	3.80	0.15	22.80		
			1	40.00	4.00	0.15	24.00		
			1	40.00	3.80	0.15	22.80		
	Cross Road		1	155.00	5.00	0.15	116.25		
							185.85	5159.02	**958804.00**
	Basic Rate	4867.00							
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							
7	Providing and laying cement concrete using 20mm and down size granite jelly of ready mixed concrete **(RMC)** M20 for R.C.C works laid in 15cms thick layers and well compacted vibrating, curing, for raft foundation, column footing, main and secondary beams with all lead and lifts etc.,complete (exclusive of cost of steel and fabrication charges.) Page No.18 / Item No. 4.46)								
		Cum							
			1	40.00	3.80	0.125	19.00		

S. No.	Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
			1	40.00	4.00	0.125	20.00		
			1	40.00	3.80	0.125	19.00		
			1	155.00	5.00	0.125	96.88		
							154.88	6231.74	**965141.00**
	Basic Rate	5879.00							
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
3	**Vaccum De-watering** with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator HOM of machinery Screed Vibratiry, Power Floater, blade and disc etc., with all lead and lift (P.177/ I.22.7)								
		Sqm							
			1	40.00	3.80		152.00		
			1	40.00	4.00		160.00		
			1	40.00	3.80		152.00		
			1	155.00	5.00		775.00		
							1239.00	95.40	**118201.00**
	Basic Rate	90.00							
	Area Weightage @ 6%	5.40							
	Total	**95.40**							
	Providing Groove cutting for width of 5mm to 10mm and depth 80mm-100mm including cost of cutting machine generator and HOM of machinery including cost of blade, coolant etc., including cleaning aof groove & providing sand and hot bitumen fillars and filler metal etc.,including cost of conveyance of all materials, labour,lead and lift charges and all the other incidental charges as per drawing and as per specifications, MORTH specification (P-178/ I.22.8)								
		m							
			12	3.80			45.60		
			15	5.00			75.00		
			1	120.00			120.00		
							240.60	121.90	29329.00
	Basic Rate	115.00							
	Area Weightage @ 6%	6.90							
	Total	**121.90**							
	Miscellaneous and unforeseen charges	LS							5063.00
							Grand Total Amount		3000000.00
	(Rupees Thirty Lakhs Only)								

TECHNICALLY SANCTIONED FOR Rs. 30.00 lakh Rs
Rupees .....
Under .....
Registered .....
Subject to conditions contained in
enclosed memo No. 134 Dt. 16.2.17 /9/
Dt..... Estimate A/ Sanctioned
..... No.....
Dated ..... Rs.....
TA
Chief Engineer

TIFICATE

The site has been inspected and the work is found to be necessary.
The rates adopted are as per PW,P IWTD SR of 2016-17 and data rate of Bangalore Circle.
The provisions were made in this estimate are necessary and adequate.
The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

Assistant Engineer
Ward No.02

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P

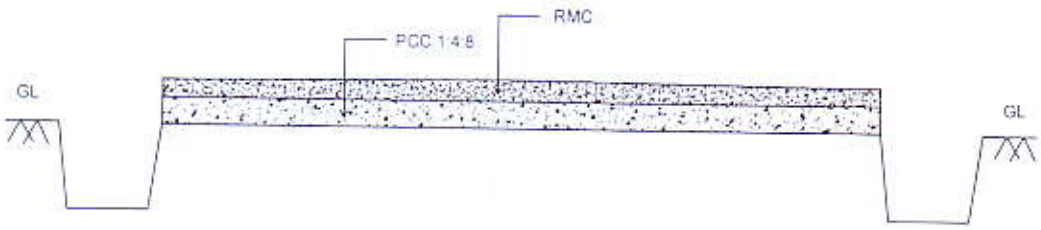
Executive Engineer
Yelahanka Division
B.B.M.P

Administrative Approval
Accorded For 30.00 lakh Rs.
Head of A/C.... P1771
CER NO :..... 181 Dt. 16/02/17

TA

CE (YNK)

NAME OF WORK : IMPROVEMENTS OF ROADS AND DRAINS AT NAGENAHALLI VILLAGE IN WARD NO.02 OF YELAHANKA SUB-DIVISION

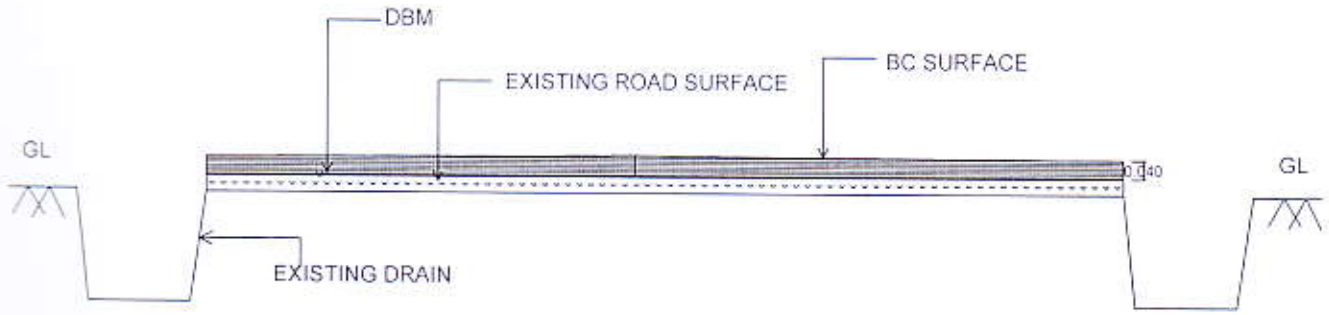


TYPICAL CROSS SECTION OF CC ROAD

A.E

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

AME OF WORK : IMPROVEMENTS OF ROADS AND DRAINS AT NAGENAHALLI VILLAGE IN WARD NO.02 OF YELAHANKA SUB-DIVISION

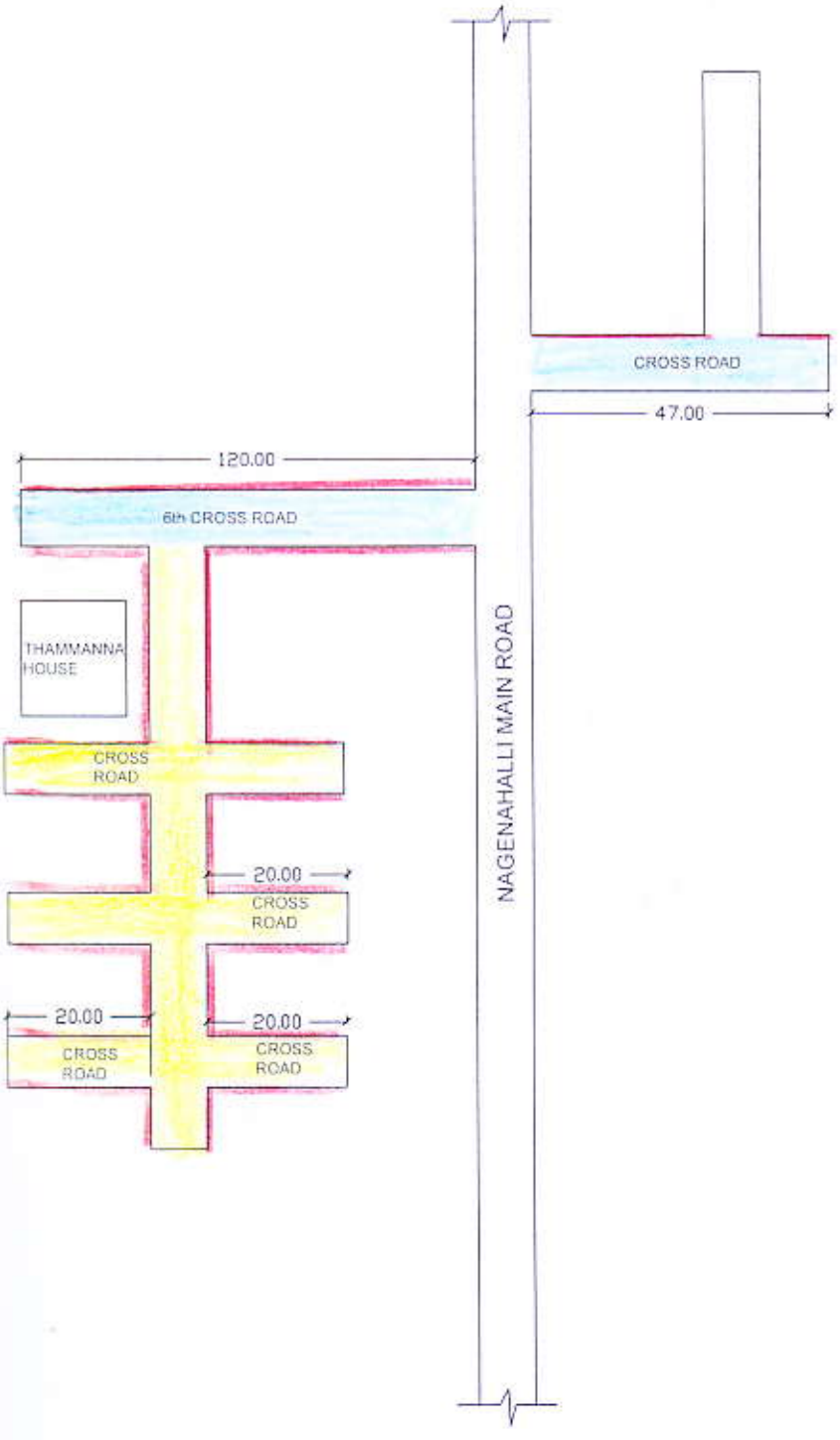


TYPICAL CROSS SECTION OF ASPHALT ROAD

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

AME OF WORK : IMPROVEMENTS OF ROADS AND DRAINS AT NAGENAHALLI VILLAGE IN WARD NO.02 OF YELAHANKA SUB-DIVISION

KEY : NOT TO SCALE



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- DESILTING

Assistant Engineer
Ward No.02
B.B.M.P

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P

ELAHANKA ZONE
ARD 2-CHOWDESHWARI WARD